What is claimed is:

1. A method for storing and updating information in a network having n hierarchical levels, said method comprising the steps of:

defining a root node positioned in a first of said levels, said root node having no parent node and at least one child node;

defining at least two leaf nodes positioned in an nth of said levels, each of said leaf nodes having a parent node and no child node;

defining a corresponding path between each of said at least two leaf nodes and said root node;

associating each non-leaf node with a corresponding set of keys wherein each key in said corresponding set of keys further corresponds to at least one child node of said non-leaf node; and

providing each leaf node with a related set of keys wherein said related set of keys includes each key associated with each non-leaf node on said corresponding path from said leaf node to said root node.

2. The method of claim 1 wherein said corresponding set of keys associated with each non-leaf node includes 2^m-1 keys where m is the maximum number of child nodes that may be associated with each non-leaf node.

3. The method of claim 1 wherein said corresponding set of keys associated with each non-leaf node includes 2^m-2 keys where m is the maximum number of child nodes that may be associated with each non-leaf node.

4. The method of claim 1 wherein said related set of keys provided to each leaf node includes $(n-1)*(2^m - 1)$ keys where m is the maximum number of child nodes that may be associated with each non-leaf node.

5. The method of claim 1 wherein each non-leaf node is associated with more than two child nodes.

6. The method of claim 1 wherein each non-leaf node is associated with the same number of child nodes.

7. The method of claim 1 further comprising the step of defining an internal node positioned on said corresponding path between said root node and a first of said leaf nodes, said internal node being associated with a hierarchical level between said first level and said *n*th level.

8. The method of claim 1 further comprising the step of identifying a specific one of said leaf nodes as a compromised leaf node.

9. The method of claim 8 further comprising the step of removing at least a portion of said path between said compromised leaf node and said root node.

10. The method of claim 8 further comprising the step of marking a key in said set of keys related to said compromised leaf node as a compromised key.

11. The method of claim 10 further comprising the step of sending a message from said root node to a non-compromised leaf node using a key that has not been marked as a compromised key.

12. The method of claim 1 further comprising the step of identifying each of one or more specific leaf nodes as a compromised leaf node.

13. The method of claim 12 further comprising the step of removing at least a portion of said path between each of said one or more compromised leaf nodes and said root node.

14. The method of claim 12 further comprising the step of marking a key in said set of keys related to each of said one or more compromised leaf nodes as a compromised key.

15. The method of claim 14 further comprising the step of sending a message from said root node to a non-compromised leaf node using a key that has not been marked as a compromised key.

16. A system for storing and updating information in a network having a plurality of hierarchical levels, comprising:

a root node associated with a first of said levels, said root node having no parent node and at least one child node;

at least two leaf nodes associated with a second of said levels, each of said leaf nodes having a parent node and no child node; and

means for sending an encrypted message from said root node to said leaf nodes such that said encrypted message can be decrypted only by a selected one or selected ones of said leaf nodes.

17. A system for storing and updating information in a network having a plurality of hierarchical levels, comprising:

a root node associated with a highest of said levels, said root node having at least two child nodes and no parent node;

at least two leaf nodes associated with a lowest of said levels, each of said leaf nodes having a parent node and no child node;

a corresponding path between each of said at least two leaf nodes and said root node; and

at least one key associated with each node associated with a level higher than said lowest level, each of said at least one key corresponding to a specific child or specific children of said node associated with a level higher than said lowest level, wherein each of said leaf nodes includes each key associated with each non-leaf node on said corresponding path from said leaf node to said root node.

18. The system of claim 17 further comprising at least one internal node on said corresponding path between each of said leaf nodes and said root node, each

of said internal nodes having a parent node and at least one child node, each of said internal nodes associated with a further one of said plurality of levels.

19. The system of claim 17 wherein said root node may send a message to at least one leaf node.